

Date: Tuesday, 4/4/2006 3:20:01 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : DUAL MIRROR ASSEMBLY
Job Number : 26510	
Estimate Number : 12278	
P.O. Number : N/A	Part Number : D206558043
This Issue : 4/4/2006 S.O. No. : N/A	Drawing Number : IIN-D206-558 / D2066
Prsht Rev. : NC	Project Number : N/A
First Issue : 4/4/2006 Type : MACHINED PARTS	Drawing Revision : C / B
Previous Run :	Material : N/A
Written By : <u>SEE COMMENT BELOW</u>	Due Date : 4/21/2006
Checked & Approved By : <u>06.04.04</u>	Qty: 4 Um: Each
Comment : Est. G0209.19 Re-format; Incorporated D2066 KJ	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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**Comment:** DOCUMENT CONTROL

Photocopy bluefile and create labels per PPP D206-558-043 CHG005

DI 06/04/07 (4)

2.0	D2011101	Mirror 6"
-----	----------	-----------

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Mirror 6"

Pick:

Qty	Part Number	Description	Batch
8	D2011-101	Mirror Ass'y 6"	B24967

3.0	D2052	Bracket
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**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Bracket

Pick:

Qty	Part Number	Description	Batch
8	D2052	Bracket	B17500

4.0	D2054	Bushing - Delrin
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**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Bushing - Delrin

Pick:

Qty	Part Number	Description	Batch
8	D2054	Bushing	B20837

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 4/4/2006 3:20:01 PM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL MIRROR ASSEMBLY

Job Number: 26510

Part Number: D206558043

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D2055

Clamp



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Clamp

Pick:

Qty Part Number

Description

Batch

4 1 D2055 Clamp

~~B16772~~ B16712

6.0

D2056

Bell Crank Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bell Crank Assembly

Pick:

Qty Part Number

Description

Batch

4 1 D2056 Bellcrank

B17541

7.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Washer

Pick:

Qty Part Number

Description

Batch

10 1 AN960JD10

Washer M19521

8.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Nut

Pick:

Qty Part Number

Description

Batch

2 MS21042L3
or MS21042-3

M18917

9.0

MS27039118

Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Screw

Pick:

Qty Part Number

Description

Batch

2 MS27039-1-18 Screw

M12307

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 4/4/2006 3:20:01 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL MIRROR ASSEMBLY

Job Number: 26510

Part Number: D206558043

Job Number:



Seq. #:

Machine Or Operation:

Description :

10.0

M304TR0500W035

304 RD Tube .500 x .035W



Comment: Qty.: 2.8000 f(s)/Unit Total: 11.2001 f(s)
304 RD Tube .500 x .035W
304/316 SS Seamless Tube
(Ref. QSI 017 4.1.1.2) as per Dwg D2066 using punch Jig DT8012.
Identify as D2066.
Batch: M100928
Debur and Polish
Note: Punch 1 end only at this time.

FF 06.05.10

11.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE
Punch 1/2" OD x .035" Wall
Slide on parts D2052, D2055, D2056, D2054 as per Dwg D206-558
Note orientation of belcrank and order of parts.
Punch other end to length (28.62") as per Dwg D2066
Use template DT8054

FF 06.05.10

12.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1
Flatten the ends on Hydraulic press using DT8545
Bend per Dwg D2066 using template D2066T1
Debur
Drill 3/16" Dia holes per D2066T1 template and Dwg D2066
Debur holes
Assemble remaining parts as per Dwg D206-558

FF 06.05.25

FF 06.05.26

13.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

14.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Pick Packing Kit

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D206-558-043 PAR #: N/A Fault Category: Prod/PAB. ASS' med & small NCR: Yes No DQA: D Date: 06.05.01
 QA: N/C Closed: Y Date: 06.05.31

NCR: <u>26510</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06.05.15	12	First bend to short on 2 nd arms. Remove new ones on one arm D2056, on out side of the bend.		Scrap & replace use. Mat'l for smaller struts.	06.05.15 FF			
06.05.26	12	1 Hole not lined up with opposing side.		scrap Replace	06.05.26 FF			

NOTE: Date & initial all entries

Date: Tuesday, 4/4/2006 3:20:01 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL MIRROR ASSEMBLY

Job Number: 26510

Part Number: D206558043

Job Number:



Seq. #:

Machine Or Operation:

Description :

15.0

D2053

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bracket

Pick: Packing Kit

Qty Part Number Description Batch

4 *✓* D2053 Bracket *B216710*

16.0

D2067

Connector



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Connector

Pick: Packing Kit

Qty Part Number Description Batch

4 *✓* D2067 Connector *B21182 1m B21181 2m B21322 1m*

17.0

D2071

Cable Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Cable Assembly

Pick: Packing Kit

Qty Part Number Description Batch

4 *✓* D2071 Cable *B21322 B21181 3m*

18.0

AN34A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Bolt

Pick: Packing Kit

Qty Part Number Description Batch

16 *✓* AN3-4A Bolt *M18310*

19.0

AN5261032R9

Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Screw

Pick: Packing Kit

Qty Part Number Description Batch

16 *✓* AN526-1032R9 Screw *M10953 6m*
or AN526C1032R9 *M 11325 10m*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 4/4/2006 3:20:02 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL MIRROR ASSEMBLY

Job Number: 26510

Part Number: D206558043

Job Number:



Seq. #:

Machine Or Operation:

Description :

20.0

AN960JD10L

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Washer

Pick: Packing Kit

Qty Part Number Description Batch

16 X AN960JD10L Washer M10536

21.0

MS21919DG5

Clamp



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Clamp

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21919DG5 Clamp

or MS21919WDG5

M11325

22.0

MS354899

Grommet



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Grommet

Pick: Packing Kit

Qty Part Number Description Batch

4 X MS35489-9 Grommet

M9619 3 mcp

M9376 1 mcp

Rev 0 06/05/30 (4)

23.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

SB 06/05/30

24.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: FG10

Rev 0

06/05/30 (4)

25.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06/05/31

Job Completion



U 06-05-31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

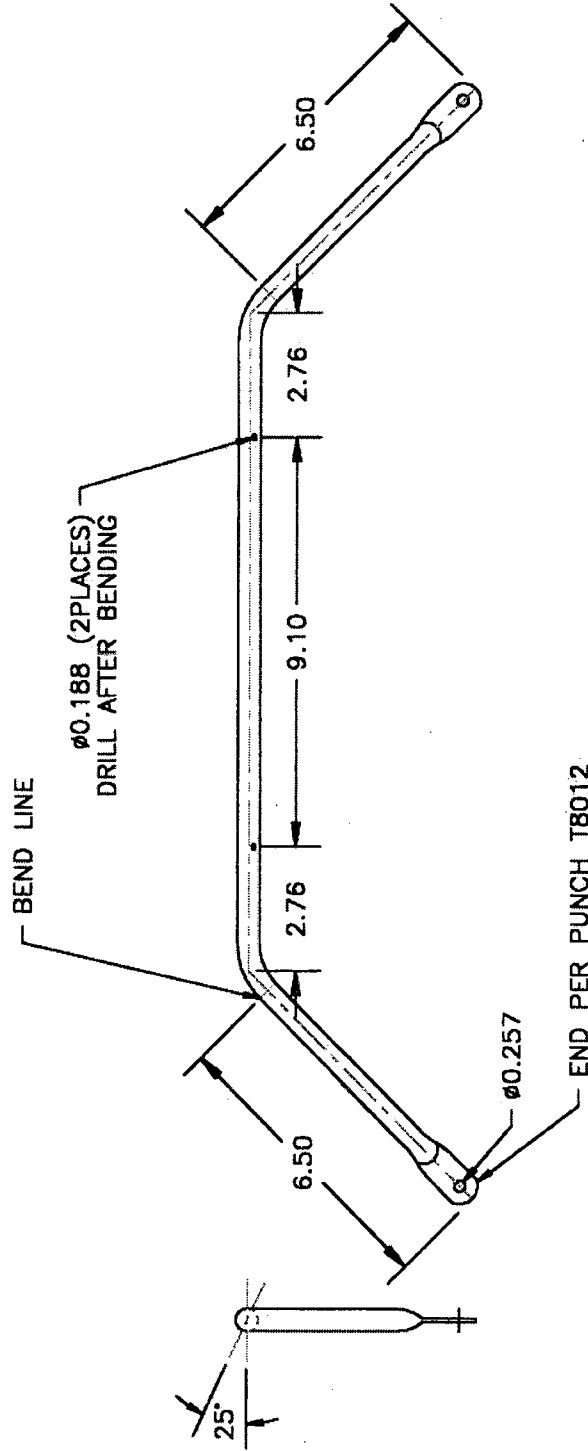
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART



DESIGN	DRAWN BY	DART AEROSPACE LTD VICTORIA INTERNATIONAL AIRPORT, CANADA	
B WILLIAMS	B WILLIAMS	DRAWING NO.	REV. B
CHECKED <i>BW</i>	APPROVED <i>JS</i>	D2066	SHEET 1 OF 1
DATE	TITLE	SCALE	
92.03.12	ARM	1:4	
B	96.02.06	RE-DESIGNED	



D2066 CUT LENGTH 28.62
NOTE:
ADD D2052,D2055,D2056
D2054 TO ARM BEFORE
ENDS ARE PUNCHED AND
ARM IS BENT

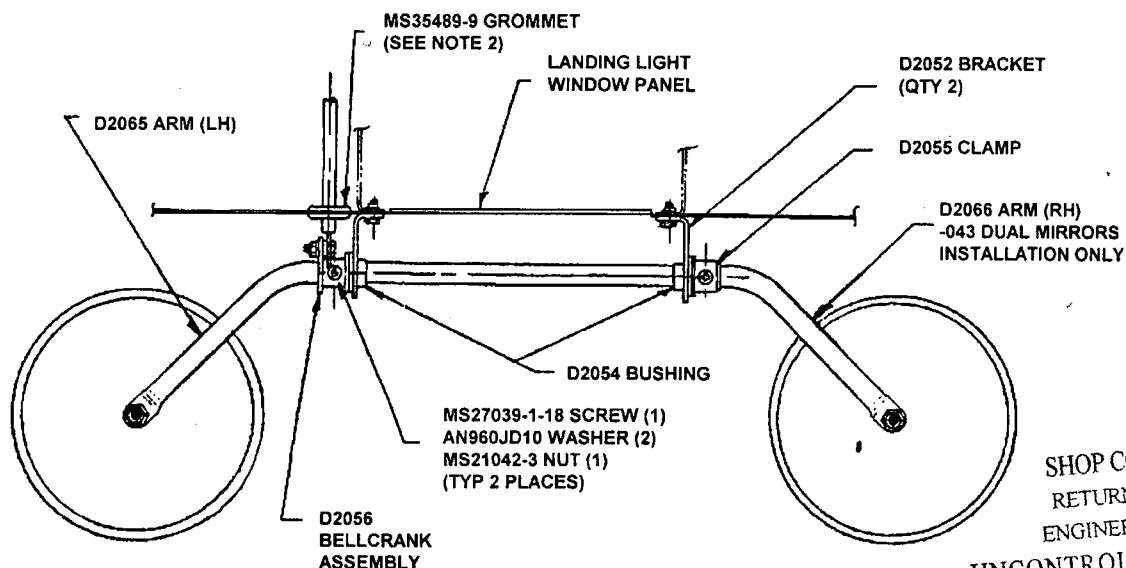
MATERIAL: 304/316 SS 1/2 OD X 0.035 WALL

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3.0 CARGO MIRROR INSTALLATION

Install the Cargo Mirror as follows:

1. Install D206-558-041/-043 cargo mirror assembly using AN3-4A bolts and AN960JD10L washers. Pickup existing anchor nuts in 4 places.
2. Install D2067 connector onto D2056 bellcrank assembly to locate hole for MS35489-9 grommet. With the mirror in the deployed position, mark and drill $\varnothing 0.125"$ (3.2mm) hole in landing light window panel where the grommet should be located. Open pilot hole to $\varnothing 0.563"$ (14.3mm). Install grommet.
3. Install D2053 bracket using AN526-1032R9 screws. Pickup on existing anchor nuts.
4. Position D2071 cable as shown. Install MS21919DG5 clamps using AN526-1032R9 screws where required. Pickup existing rivnuts or anchor nuts if available.
5. Install D2071 control cable using D2067 connector. Connector should rotate freely in bellcrank when MS21042-3 nut is torqued and cable clamped



**Figure 2: – View A: Looking Aft.
(D206-558-043 Mirror Shown)**

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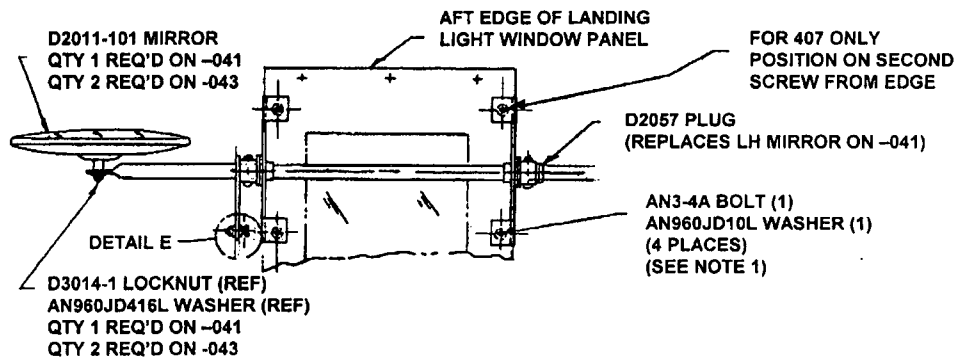


Figure 3: - View C: Looking Down on Mirror Installation
(D206-558-041 Mirror Shown)

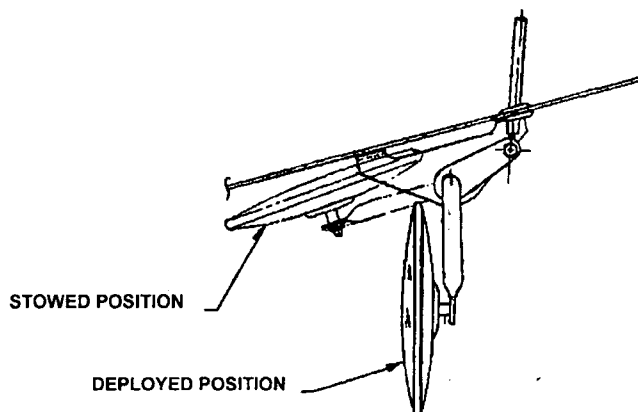


Figure 4: - Detail D: Looking from Side on Mirror Installation
(D206-558-041/-043 Mirror Shown)

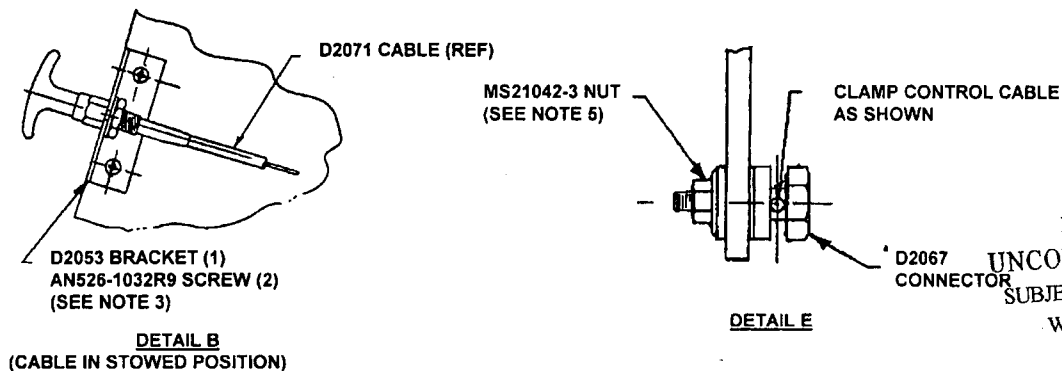


Figure 5: - Details B and E on Mirror Installation
(D206-558-041/-043 Mirror Shown)

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4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041 Bell 206A/B/L/L1/L3/L4 Bell 407	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D206-558-043 Bell 206A/B/L/L1/L3/L4 Bell 407	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg

5.0 WEIGHT AND BALANCE

Qty -041	Qty -043	Part Number	Description
X		D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X	D206-558-043	DUAL CARGO MIRROR ASSEMBLY
1	2	D3014-1	* LOCKNUT
1	1	D2071	CABLE ASSEMBLY
2	2	D2054	BUSHING
1	1	D2067	CONNECTOR
	1	D2066	ARM
1		D2065	ARM
1		D2057	PLUG
1	1	D2056	BELLCRANK ASSEMBLY
1	1	D2055	CLAMP
1	1	D2053	BRACKET
2	2	D2052	BRACKET
1	2	D2011-101	MIRROR ASSEMBLY
4	4	AN3-4A	BOLT
4	4	AN526-1032R9	SCREW
1	2	AN960JD416L	* WASHER
4	4	AN960JD10	WASHER
6	6	AN960JD10L	WASHER
3	3	MS21042-3	NUT (or MS21042L3)
2	2	MS21919DG5	CLAMP
2	2	MS27039-1-18	SCREW
1	1	MS35489-9	GROMMET

* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

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